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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,312	07/20/2006	Rene Jan Hendriks	NL 040056	9228

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EXAMINER
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ZIMMERMAN, GLENN D

ART UNIT	PAPER NUMBER
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2879

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,312	<b>Applicant(s)</b> HENDRIKS ET AL.	
	<b>Examiner</b> Glenn Zimmerman	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 1-4 are objected to because of the following informalities: In claim 1, the Examiner suggests changing "High" to "A high". In claim 2, the Examiner suggests changing "phoshor" to "phosphor". In each of claims 2-4, the Examiner suggests changing "Lamp as" to "The lamp as". In claim 4, the Examiner suggests changing "from from" to "from the group consisting of". In claim 4, since the wording "wherein the discharge medium comprises one or more metal halides" has already been mentioned in claim 3 which claim 4 depends from, the examiner suggests deleting the wording "wherein the discharge medium comprises one or more metal halides," from claim 4. Appropriate correction is required.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A

COMPACT DISC.

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 13 Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Thornton et al. (EP 0010991);"Thornton").**

Regarding claim 1, Thornton discloses a high-pressure metal halide lamp (fig. 10 metal halide HID lamp page 9 lines1-3), comprising an arc tube (ref. 68 arc tube) comprising a metal halide containing discharge medium for supporting an electrical discharge (ref. 68 metal halide), an outer envelope surrounding said arc tube (see fig. 10 no ref. no.), and a phosphor coating on the inner surface of said outer envelope (ref. 64 phosphor layer), said phosphor coating comprising a blue emitting phosphor (page 9 lines 30-35; This allows use as a separate layer of the blue phosphor layer on the inner surface described on page 7 lines 15-23).

**Claims 1-4 are rejected under 35 U.S.C. 102(a) as being anticipated by Ogata et al. (JP 2003-297284;"Ogata")**

The reference to Ogata is in Japanese, so a Machine Translated English Translation was created using the following website

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<http://www19.ipdl.inpit.go.jp/PA1/cgi-bin/PA1INDEX> . This English language translation is used as an interpretation of the Ogata reference.

Regarding claim 1, Ogata discloses a high-pressure metal halide lamp (para [0005] and title; para [0036]; drawing 2 ref. MHL), comprising an arc tube (drawing 2 ref. 1 arc tube) comprising a metal halide containing discharge medium for supporting an electrical discharge (ref. MHL metal halide lamp), an outer envelope surrounding said arc tube (ref. 2 outer tube), and a phosphor coating on the inner surface of said outer envelope (ref. 3 fluorescent substance; para [0001] and [0002]), said phosphor coating comprising a blue emitting phosphor ( [Work example 6]  $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}$  with para [0030] choose two fluorescent substance layers one for  $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}$ ).

Regarding claim 2, Ogata discloses the Lamp as claimed in claim 1, wherein the blue emitting phosphor is selected from the group consisting of  $(\text{Ba,Ca})_{1.29}\text{Al}_{12}\text{O}_{19.29}:\text{Eu}$ ,  $\text{Sr}_5(\text{PO}_4)_3\text{Cl}:\text{Eu}$ ,  $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}$  (para [Work example 6] with para [0030] choose two fluorescent substance layers one for  $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}$ )  $\text{Si}_2\text{Al}_6\text{O}_{11}:\text{Eu}$ ,  $\text{BaAl}_8\text{O}_{13}:\text{Eu}$ ,  $\text{Sr}_4\text{Al}_{14}\text{O}_{25}:\text{Eu}$ , and  $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu,Mn}$ .

Regarding claim 3, Ogata discloses the Lamp as claimed in claim 1, wherein the discharge medium comprises one or more metal halides, wherein

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the metal is chosen from the group consisting of sodium, scandium, thallium, and indium (para [Work example 6]  $\text{ScI}_3$  and  $\text{NaI}$ ) .

Regarding claim 4, Ogata discloses the Lamp as claimed in claim 3, wherein the discharge medium comprises one or more metal halides, wherein the metal is chosen from sodium and scandium (para [Work example 6]  $\text{ScI}_3$  and  $\text{NaI}$ ).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton et al. (EP 0010991); "Thornton") in view of Wachtel (USPN 4,038,204).**

Regarding claim 2, Thornton discloses the lamp as claimed in claim 1, but fails to disclose wherein the blue emitting phosphor is selected from the group consisting of  $(\text{Ba,Ca})_{1.29} \text{Al}_{12} \text{O}_{19.29} : \text{Eu}$ ,  $\text{Sr}_5(\text{PO}_4)_3 \text{Cl} : \text{Eu}$ ,  $\text{BaMgAl}_{10} \text{O}_{17} : \text{Eu}$ ,  $\text{Si}_2 \text{Al}_6 \text{O}_{11} : \text{Eu}$ ,  $\text{BaAl}_8 \text{O}_{13} : \text{Eu}$ ,  $\text{Sr}_4 \text{Al}_{14} \text{O}_{25} : \text{Eu}$ , and  $\text{BaMgAl}_{10} \text{O}_{17} : \text{Eu, Mn}$ .

Wachtel discloses wherein the blue emitting phosphor is selected from the group consisting of  $(\text{Ba,Ca})_{1.29} \text{Al}_{12} \text{O}_{19.29} : \text{Eu}$ ,  $\text{Sr}_5(\text{PO}_4)_3 \text{Cl} : \text{Eu}$  (col. 3 lines 5-10),

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BaMgAl<sub>10</sub>O<sub>17</sub>:Eu, Si<sub>2</sub>Al<sub>6</sub>O<sub>11</sub>:Eu, BaAl<sub>8</sub>O<sub>13</sub>:Eu, Sr<sub>4</sub>Al<sub>14</sub>O<sub>25</sub>:Eu, and  
BaMgAl<sub>10</sub>O<sub>17</sub>:Eu,Mn.

It would have been obvious to one of ordinary skill, in the art, at the time the invention was made, to incorporate the blue emitting phosphor is selected from the group consisting of (Ba,Ca)<sub>1.29</sub> Al<sub>12</sub> O<sub>19.29</sub>:Eu, Sr<sub>5</sub>(PO<sub>4</sub>)<sub>3</sub>Cl:Eu, BaMgAl<sub>10</sub>O<sub>17</sub>:Eu, Si<sub>2</sub>Al<sub>6</sub>O<sub>11</sub>:Eu, BaAl<sub>8</sub>O<sub>13</sub>:Eu, Sr<sub>4</sub>Al<sub>14</sub>O<sub>25</sub>:Eu, and BaMgAl<sub>10</sub>O<sub>17</sub>:Eu,Mn as taught by Wachtel, in the blue phosphor of Thornton to provide efficient blue emitting luminescent compositions (col. 1 lines 44-46) and provide efficient luminescent composition having the characteristics of efficient excitation by ultraviolet and having narrow half-widths (col. 1 lines 46-54).

**Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton et al. (EP 0010991);"Thornton") in view of Zollweg et al. (USPN 3,798,487;"Zollweg").**

Regarding claims 3 and 4, Thornton discloses the lamp as claimed in claims 1 and 3, but fails to disclose wherein the discharge medium comprises one or more metal halides, wherein the metal is chosen from the group consisting of sodium, scandium, thallium and indium (Claim 3) and wherein the discharge medium comprises one or more metal halides, wherein the metal is chosen from from sodium and scandium (claim 4).

Zollweg discloses wherein the discharge medium comprises one or more metal halides, wherein the metal is chosen from the group consisting of sodium,



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scandium, thallium and indium (col. 2 lines 13-17 sodium halide) and wherein the discharge medium comprises one or more metal halides, wherein the metal is chosen from from sodium and scandium (col. 2 lines 13-17 sodium halide).

It would have been obvious to one of ordinary skill, in the art, at the time the invention was made, to incorporate the wherein the discharge medium comprises one or more metal halides, wherein the metal is chosen from the group consisting of sodium, scandium, thallium and indium and wherein the discharge medium comprises one or more metal halides, wherein the metal is chosen from from sodium and scandium as taught by Zollweg, in the discharge medium of Thornton to provide a discharge-sustaining filling for a high pressure metal halide lamp (col. 1 lines 59-62; title; col. 2 lines 49-51).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bokor et al. (WO 02/11214 A1) disclose a Luminescent conversion LED, used for incandescent lamps. Emits primary radiation in specified region of optical spectral region. Bokor et al disclose  $(\text{Ba,Ca})_{1.29} \text{Al}_{12} \text{O}_{19.29}:\text{Eu}$  and  $\text{Sr}_4\text{Al}_{14}\text{O}_{25}:\text{Eu}$  (Pages 6 and 7). Srivastava et al. (USPN 6,982,046) discloses Light Sources with Nanometer-sized VUV Radiation Absorbing Phosphors. Srivastava et al. (USPN 6,982,046) disclose the phosphor  $\text{BaAl}_8\text{O}_{13}:\text{Eu}$  and  $\text{Sr}_4\text{Al}_{14}\text{O}_{25}:\text{Eu}$  (claim 13; col. 4 lines 60-62). Wang et al. (USPN 7,059,927) disclose a Method for Manufacturing

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White Light Source. Wang et al discloses the phosphor  $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu},\text{Mn}$  (col. 3 lines 34-39). Phosphor  $\text{Si}_2\text{Al}_6\text{O}_{11}:\text{Eu}$  found in claim 2 may have a typographical error where what was really meant was  $\text{Sr}_2\text{Al}_6\text{O}_{11}:\text{Eu}$ ?

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (571) 272-7614. The examiner can normally be reached on Monday thru Friday 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter J Macchiarolo/  
Primary Examiner, Art Unit 2879

/Glenn Zimmerman/  
Examiner, Art Unit 2879